

CLAIMS

- 1 1. A networked computer system comprising:
- 2 (A) a first computer system comprising:
- 3 a first processor;
- 4 a first memory coupled to the first processor;
- 5 a first data structure residing in the first memory;
- 6 a first application residing in the first memory;
- 7 a trigger mechanism residing in the first memory and executed by the first
- 8 processor that detects a change to the first data structure and, in response, invokes
- 9 the first application;
- 10 a software tool residing in the memory that is invoked by the first
- 11 application to retrieve information from the data structure and to format the
- 12 information into a defined format;
- 13 (B) a secure communication mechanism that provides encoded messages between
- 14 the first computer system and a second computer system, the secure communication
- 15 mechanism transmitting the formatted information from the first computer system to the
- 16 second computer system;
- 17 (C) the second computer system comprising:
- 18 a second processor;
- 19 a second memory coupled to the second processor;
- 20 a second data structure residing in the memory;
- 21 a second application residing in the second memory, the second
- 22 application receiving the formatted information from the secure communication
- 23 mechanism;

(claim 1 continued)

24 a parser residing in the second memory, the parser parsing the formatted
25 information and generating therefrom second information, the parser adding the
26 second information to the second data structure;
27 the second application processing the second information in the second
28 data structure, taking action based on the second information, and generating a
29 response to the first computer system via the secure communication mechanism.

1 2. The networked computer system of claim 1 wherein the defined format comprises
2 an XML document.

1 3. The networked computer system of claim 1 wherein the action taken depends on
2 the second information and business logic for the second computer system.

1 4. The networked computer system of claim 1 further comprising a front-end
2 application coupled to the first computer system that allows a user to cause a change in
3 the first data structure.

- 1 5. A networked computer system comprising:
 - 2 (A) a first computer system comprising:
 - 3 a first processor;
 - 4 a first memory coupled to the first processor;
 - 5 a first data structure residing in the first memory;
 - 6 a first application residing in the first memory;
 - 7 a trigger mechanism residing in the first memory and executed by the first
 - 8 processor that detects a change to the first data structure and, in response, invokes
 - 9 the first application;
 - 10 a software tool residing in the memory that is invoked by the first
 - 11 application to retrieve information from the data structure and to format the
 - 12 information into an eXtensible Markup Language (XML) document according to
 - 13 information contained in a mapping file that defines the structure and content of
 - 14 the XML document;
 - 15 a response mechanism residing in the first memory and executed by the
 - 16 first processor that processes at least one response from a second computer
 - 17 system;
 - 18 (B) a front-end application coupled to the first computer system that allows a user
 - 19 to cause a change in the first data structure;
 - 20 (C) a virtual private network that provides encoded messages between the first
 - 21 computer system and the second computer system, the virtual private network
 - 22 transmitting the XML document from the first computer system to the second computer
 - 23 system;
 - 24 (D) the second computer system comprising:
 - 25 a second processor;
 - 26 a second memory coupled to the second processor;
 - 27 a second data structure residing in the memory;

(claim 5 continued)

28 a second application residing in the second memory, the second
29 application receiving the XML document via the virtual private network;
30 an XML parser residing in the second memory, the XML parser parsing
31 the formatted information and generating therefrom second information;
32 the second application performing the steps of:
33 adding the second information to the second data structure;
34 processing the second information in the second data structure to
35 determine whether the second information satisfies at least one automatic
36 approval criterion;
37 if the second information does not satisfy the at least one automatic
38 approval criterion, notifying a human agent that manual processing is
39 required;
40 formatting a response XML document indicating status; and
41 transmitting the response XML document to the response
42 mechanism via the virtual private network.

1 7. The method of claim 6 wherein step (3) comprises the step of formatting the first
2 information into an XML document.

1 8. The method of claim 6 wherein steps (2) and (3) comprise using an XML
2 Lightweight Extractor (XLE) to extract the first information from the first data structure
3 and to format the first information into an XML document that satisfies a mapping file
4 that defines the structure and content of the XML document.

1 9. The method of claim 6 wherein the business logic includes at least one criterion
2 for automatically processing the formatted first information and at least one criterion for
3 manually processing the formatted first information.

- 1 10. The method of claim 6 further comprising the step of:
2 (8) the first computer system generating feedback to a user that caused the change
3 to the first data structure in step (1).
- 1 11. The method of claim 10 wherein step (8) comprises the step of sending a message
2 to the user via the front-end application.
- 1 12. The method of claim 10 wherein step (8) comprises the step of sending an e-mail
2 message to the user.

1 13. A method for communicating between a first computer system and a second
2 computer system, the method comprising the steps of:
3 (1) a user using a front-end application to cause a change to a first data structure
4 in the first computer system;
5 (2) detecting the change to the first data structure;
6 (3) using a XML Lightweight Extractor (XLE) to extract the first information
7 from the first data structure and to format the first information into an XML document
8 that satisfies a mapping file that defines the structure and content of the XML document;
9 (4) transmitting the XML document from the first computer system to the second
10 computer system via a virtual private network that provides encoded messages between
11 the first computer system and the second computer system;
12 (5) parsing the XML document and generating therefrom second information;
13 (6) processing the second information to determine whether the second
14 information satisfies at least one automatic approval criterion;
15 (7) if the second information does not satisfy the at least one automatic approval
16 criterion, notifying a human agent that manual processing is required;
17 (8) formatting a response XML document indicating status; and
18 (9) transmitting the response XML document to the first computer system via the
19 virtual private network.

1 14. The method of claim 13 further comprising the step of:
2 (10) the first computer system generating feedback to the user.

1 15. The method of claim 14 wherein step (10) comprises the step of sending a
2 message to the user via the front-end application.

1 17. A method for doing business comprising the steps of:
2 monitoring for changes a first data structure in a first computer system;
3 detecting a change to the first data structure;
4 in response to the detected change in the first data structure, extracting first
5 information from the first data structure;
6 formatting the first information;
7 sending the formatted first information to the second computer system for
8 processing via a secure communication mechanism that provides encoded messages
9 between the first computer system and the second computer system;
10 parsing the formatted first information;
11 acting upon the parsed information according to business logic residing in the
12 second computer system; and
13 generating a response to the first computer system that indicates status of the
14 processing of the data.

1 18. A method for an insurance company that has a first computer system to do business
2 with an insurance underwriter that has a second computer system, the method comprising
3 the steps of:
4 a trigger program executing on the first computer system monitoring a first
5 database in a first computer system for changes;
6 the trigger program detecting a change to the first database, the change
7 corresponding to a new application for an insurance policy;
8 in response to the detected change in the first database, invoking a first software
9 application on the first computer system to extract first information from the first
10 database, the first information corresponding to information in the new application for an
11 insurance policy;
12 the first software application formatting the first information into an XML
13 document according to information contained in a mapping file that defines the structure
14 and content of the XML document;
15 the first software application sending the XML document to a second application
16 executing on the second computer system via a virtual private network that provides
17 encoded messages between the first computer system and the second computer system;
18 the second software application parsing the XML document;
19 the second software application acting upon information in the parsed XML
20 document according to insurance underwriting logic residing in the second computer
21 system; and
22 the second software application generating a response XML document and
23 sending the response XML document to the first computer system that indicates whether
24 the new application for the insurance policy is approved.

